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THE CAPITALIZATION OF THE LAND TAX

THE notion that the capitalization of land taxes gives a privileged position in the tax system to persons acquiring land subsequent to the tax levy has been finally dispelled, largely by the publication of Professor T. S. Adams' paper on "Tax Exemption through Tax Capitalization" in the *American Economic Review*,[1] June, 1916. Hence the question whether the land taxes which prevail in this country as part of our general system of wealth taxation have been capitalized, and the further question whether land taxes are unique in being subject to capitalization have come to be of but little practical importance. These questions, however, are of theoretical interest and in the view of the present writer the authorities on tax incidence have taken unsound positions on them.

In regard to the first point, it has been held with seeming unanimity that a land tax cannot be capitalized if it is part of a general tax, that is, if the tax rate that falls upon land value is equal to the rate that is levied upon other forms of wealth. Professor Seligman's exposition is typical. He says, "The truth of the matter is that the whole theory applies to the land tax only where it is the sole tax levied." [2] "It is clearly necessary to assume inequality of taxation. If there is no excess there is nothing to be capitalized. The theory applies only to taxes which are exclusive, or which exceed other taxes by a definite amount. Inequality of taxation is the cornerstone of capitalization." [3, 4]

[1] Vol vi, p 271

[2] The Shifting and Incidence of Taxation, 3d ed , p 179

[3] Ibid , p 223.

[4] "If the two taxes (an income tax and a land tax) are equally heavy there is no amortization (capitalization) whatever" Pierson, N G, Principles of Economics, English translation, London, 1912, vol II, p 413

"Every real tax, when not part of a well-organized system which taxes every kind of property or all receivers of wealth, can be shifted in this way (by the process of capitalization)," p 202 "The same (that a tax has been capitalized) is generally true of all taxes upon land which are in addition to a regular system of taxes, a part of which covers

This conclusion is necessarily dependent upon the assumption that the rate of interest at which land income is capitalized decreases by the amount of the tax rate when a general tax is imposed. That is, that the rate at which land income is capitalized and the net income from land decrease in the same proportion due to the tax levy. If, for example, land income is capitalized at 5 per cent, land bearing $500 rent yearly and expected to yield this sum indefinitely, would be worth $10,000. If a general tax of 1 per cent should be levied, the net income from this parcel of land would be reduced to $400, but if the rate of capitalization should be reduced to 4 per cent, the value of the land would remain at $10,000: the land tax would not have been capitalized. The familiar analysis of tax shifting may be employed to show that the assumption in regard to the depression of the rate of capitalization by the amount of the tax is perhaps not warranted. But attention may first be called to a factor which appears to have been overlooked heretofore.

Land income is capitalized at a rate of interest that is lower than the rate earned from most other investments. The net rates of return from land and other forms of wealth tend to be

the revenue from land," p 344 Plehn, C C , Introduction to Public Finance, 3d ed , New York, 1909

" Where a tax has been recognized as at once special and definitely fixed, it seems to pass out of the ordinary category of taxes into that of charges, a transformation only possible in the case of durable productive wealth, and most prominent in respect to land." Bostoble, C F , Public Finance, 3d ed , London, 1903

" The effect of a tax on land which is merely one form of a more general tax on property or income will be quite different (from that produced by a *special* tax), since in this latter case the selling price of the land will not tend to be lowered, as its purchaser will have to pay no more taxes in consequence." Sidgwick, H , The Principles of Political Economy, 2d ed , London, 1887, p 573, footnote

" If the object of taxation be durable and the tax a special or exclusive one, the price of the object is likely to be reduced by an amount equal to the capitalized value of the tax. . . . What the prospective purchaser capitalizes and deducts is not the entire tax on the land, but the excess of that tax over similar taxes upon other investments open to him." Ely, R T , Outlines of Economics, 3d ed , New York, 1916, p 706.

When an author speaks, as Ely does, " of the excess " of a land tax " over similar taxes," he may mean the actual excess of tax burden rather than the nominal excess. If so, no exception can be taken to the statement But when capitalization of the land tax is made to depend upon an excess in the rate of the land tax as compared with the general tax rate, the actual tax burdens are assumed to be identical with the nominal tax burdens It is in part the purpose of this paper to show that this assumption is not warranted, and, as well, waiving this assumption, to show the factors that make for actual inequality in tax burdens under a general tax.

the same: they could not be different in a competitive market. But due to the risk of loss being less in land investment than in most other forms of investment, and also to the desire for home ownership, the gross rate derived from land investments is less than the prevailing gross rate of return in most industrial enterprises. Consequently the imposition of an equal tax rate upon the two classes of investment will not reduce the rates of income from the two fields of investment by the same amount, provided the tax that falls upon industrial (non-land) enterprise is not shifted to consumers. This would be true since as the rates that are set in the competitive market for the two forms of investment represent the relative desirability of owning the two forms of wealth, the rates of return, in these two fields of investment after making allowance for the tax, must be relatively about the same after the tax impost as they were before; hence, the two rates being unequal cannot they decline by the same absolute amount. The lesser rate must necessarily decline less than the larger rate. For example, if the general rate of return from industrial enterprises should be 10 per cent while land is priced so as to yield 5 per cent, a reduction in the rate of return from industry from 10 per cent to 8 per cent, would not change the rate at which land income is capitalized from 5 per cent to 3 per cent, but to some point between 3 per cent and 5 per cent. That is, with these rates of return prevailing in these two fields of investment, if a general tax of, say, 2 per cent should be levied and if the rate realized in industry after the tax deduction should fall to 8 per cent, the price of land would be adjusted so that, say, 4 per cent would be derived from land investments.

So long as the price of land remained unchanged, in such a case, the return subsequent to the 2 per cent tax imposition would be 3 per cent of the land value. Land owners would desire to transfer their investments to industrial enterprises where they could earn 8 per cent. Their offers to sell, together with the reluctance of non-land owners to buy on a 3 per cent basis, would cause the price of land to fall. Thus the land tax would have been capitalized in part even tho the

tax rate levied upon land was in no degree in excess of the tax rate levied upon other forms of wealth; and, also, even tho the tax that fell upon wealth other than land was not shifted forward to consumers.

There is additional reason for accepting this conclusion that a land tax will be, at least, partially capitalized when a general tax is imposed upon all wealth. It is, namely, that the part of the tax which falls upon industrial enterprises may be shifted wholly, or in part, to consumers. If this is done, then clearly the price of land subject to the tax will necessarily fall since land income would be reduced without a corresponding decrease in the rate at which land income is capitalized. Indeed, if the tax upon industry were shifted entirely to the consumers, the rate of income realized from industry after deducting the tax would remain as it was before the tax levy but the rate at which land income is capitalized would not change. The land tax would then be wholly capitalized.

Assuming the tax to be wholly onerous, such shifting as would take place would result largely from the tax, which would encourage exportation of capital and discourage its importation; thus by decreasing the normal supply of capital it would increase the rate of capital return. The normal supply of taxable capital might also decrease somewhat, due to the shifting of investment, to some extent, from the lines where tax evasion is impossible to those wherein the tax can be evaded.

The generally accepted position of the economists would lead us to expect that such a tax by discouraging saving and encouraging spending would bring about a reduction in the supply of capital and thus raise the rate of income therefrom. But there is perhaps not much validity in this contention. Such a tax would fall upon expenditures as well as upon savings; it would reduce the demand for loan funds and for the products of capital goods and also the supply of loan funds and the supply of capital goods. We cannot be certain that such a tax would reduce the supply side of the capital market so disproportionately to the demand side as to bring about an increase in the rate of interest.

Assuming the government expenditure of the tax receipts to be beneficial to the industrial life of the people, the imposition of a general tax need not depress the net earnings from industry at all. And while the effect of such a tax upon land income is problematical, it is clearly possible that land rent might not increase by the amount of the tax payments; and in so far as it did not, land value would necessarily fall. The general conclusion must be that the capitalization of a land tax is not dependent upon its being in excess of other taxes.

Upon the question whether land value taxes are unique in being subject to the capitalization principle, Professor Seligman may again be quoted to show the conventional position of our authorities in taxation. He says, "Tax capitalization is not at all peculiar to the land tax." [1] "On this distinction (whether the commodity is durable or perishable) depend the phenomena of what is known as tax capitalization." [2] "If the special tax covers ten years of the consumption period of a house, the imposition of the tax on houses depreciates the value of the house by the present worth of a ten-year annuity." [3, 4]

Durability is necessary if tax capitalization is to result. While a tax impost may depress the price of a good that is to be subject to but one tax payment, yet properly speaking a tax is capitalized only in case prospective tax payments are discounted into a present value; that is, capitalized and deducted from present value. But, the relation to other taxes warranting it, which is admittedly the case if the tax be a special tax, capitalization does not necessarily result if the object taxed is durable and subject to future assessments. There is in addition to durability another quality without

[1] Shifting and Incidence of Taxation, p 179

[2] Ibid , p. 221.

[3] Ibid., p. 224.

[4] "The process of capitalizing taxes and the theory of incidence based thereon are applicable to virtually every form of durable property."

Adams, T. S , "Tax Exemption through Tax Capitalization," Economic Review, vol i, p 271, June, 1916

"This line of reasoning applies to all income-bearing property that may be bought and sold." Adams, H C., Public Finance, New York, 1899, p 406.

"The same may be said of a special building tax" Plehn, C. C , ibid , p 344

See also quotation from Bostable in above footnote

which the tax imposts will not be capitalized. Namely, the good must be such that the persons upon whom the tax falls are unable to recoup the tax payments from the purchasers of the good or of the services of the good, that is taxed. Tax capitalization will not result if the tax payments may be shifted to consumers.

Land value taxes are capitalized when their relation to other taxes warrant it, because land has these two characteristics. First, it is durable, and hence subject to repeated tax imposts which may be anticipated and discounted into a present value; and, secondly, its income is not subject to the control of the land owners. The tax payments fall upon the owners of the land and they cannot shift them to the purchasers of land service. For the tax imposition will not lead them to curtail the supply of land which is yearly offered on the market and thus they will be unable to increase the income from the land.

Is this true of other goods ? The answer must be in the negative. The supply of most goods is subject to control due to the fact that new quantities are being produced. The supply of such goods tends to be adjusted so that the price received for the goods, or for the services of the goods, is just sufficient to cover marginal cost of production. Hence, an increase in cost, due to the imposition of a tax, will tend to cause a curtailment of the supply of such goods until price rises sufficiently to cover the tax.

If the current production of a good is small relative to the total supply on the market, as in the case of houses, there is, obviously, less possibility that a tax will lead to an immediate increase in the price of the good or its services than if the current production is very large relative to the supply on the market. And if for the time being new units of a good are not being produced, as in the case of houses in a city of decreasing population, a tax cannot increase the price of the good, or of its services. In the absence of production a tax cannot check production. Clearly, the greater the durability of a good the less will its total supply be affected by the current production or by withholding the current production,

and hence the less likelihood that a tax will be recouped from consumers. Rather, the greater is the likelihood that it will fall upon sellers, or owners in the case of goods whose services are sold, and for the time being reduce value, that is, be capitalized. But, to repeat, durability is not alone sufficient to insure this result. The new production of the most durable good may be of such importance to consumers that a check in production due to a tax levy will bring about an increase in price sufficient to cover the tax and thus prevent tax capitalization. It seems reasonable to believe that this would be true of houses in any of our typical American cities.

Tax capitalization does, however, apply to certain taxes other than taxes upon land value. A tax upon bonds that have already been issued submits ideally to the tax capitalization principle. A definite income is pledged to the bond holders and they are powerless to increase this income so as to recover the tax payments. The value of the bonds consequently declines by the present worth of the expected tax payments. A certain kind of tax levied upon monopoly will also be wholly capitalized; namely, a flat-rate tax. If a tax upon monopoly profit were made to vary in rate with the rate of monopoly profit the net income from the monopolized good would not necessarily decrease by the amount of the tax, nor would this necessarily result if a tax were levied upon each unit of monopoly product. However, the net income in these cases would be expected to show at least some decrease thus leading to partial capitalization of the tax. But if the tax were levied as a flat rate upon the profits of a monopoly, the price of the monopolized product would not be altered thereby. As it was set to give the greatest net profit, a given fractional reduction in the net profit will not make a change in price advisable. The tax will fall wholly upon the monopolist and will be wholly capitalized. Other than these two taxes, the land value tax seems to be alone in being subject to capitalization, save as special conditions will lead to the capitalization of other taxes, as for example, a building tax in a locality in which no new buildings are being constructed.

The above analysis is based upon the generally accepted position that a tax upon land value cannot be shifted. As has been pointed out by Professor J. R. Turner in this Journal,[1] the taxation of the value of agricultural land may lead to the exhaustion and abandonment of some land that is under cultivation and hence to an increase in the prices of agricultural products. But while this may prevent the value of most agricultural land from decreasing by the capitalized sum of the anticipated tax payments, it can hardly prevent some decrease in land value. If the value of any agricultural land is to remain as before the tax, the prices of agricultural products must rise sufficiently to cover the tax, and this is impossible unless some land is exhausted beyond recovery. For, as such price increase could come about only by a decrease in supply, as the demand cannot be assumed to change by the imposition of such a tax, it could not be such as to warrant the former supply; that is, prices could not rise by the amount of the tax, unless, as stated above, some land were exhausted beyond recovery. Barring this remote possibility, the conclusion is incontrovertible that if any rise in the prices of agricultural products followed the imposition of a land tax, it would not be sufficient to leave land owners in the enjoyment of the net economic rent which they received previously to the tax imposition. That is to say, taxes upon the value of agricultural land must be, at least, partially capitalized. Furthermore, this limitation is in no way applicable to urban land. Indeed, the pressure of a tax upon such land is in the direction of forcing land into the market and thus forcing the net income of land already in use below the point to which it is depressed by the tax. Similarly, a tax may force sufficient idle land into agricultural use to offset the tendency for land income to rise due to the abandonment of agricultural land.

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[1] Vol 31, p 353, February, 1917